

Listing of claims

1. (Currently amended) A blood processing system comprising

a blood processing set including a source of blood cells, and a blood component collection flow channel coupled to the source of blood cells including a blood cell storage container and an in-line filter to remove leukocytes from the blood cells before entering the blood cell storage container, the in-line filter including a fibrous filter medium, and first and second flexible housings, ~~a unitary, continuous peripheral seal formed by application of pressure and radio-frequency heating in a single process to join the first and second flexible housings to each other, as well as join the fibrous filtration medium to the first and second flexible housings, and~~

a pump station adapted to be placed into communication with the blood component collection flow channel to pump blood into the blood cell storage container through the in-line filter, and

a separate restraining structure contacting an outer surface of each of the first and second flexible housings to restrain the outward expansion of said housings under pressure applied during operation of the pump station.

2. (Cancelled)

3. (Original) A blood processing system according to claim 2 wherein the source of blood cells includes a donor flow channel including a blood separation device to separate blood cells from donor whole blood.

4. (Original) A blood processing system according to claim 1 wherein the source of blood cells includes a donor flow channel including a blood separation device to separate blood cells from donor whole blood.

5. (Currently Amended) A system according to claim 1 or 2 or 3 or 4 further comprising a controller wherein the controller includes a function to derive a value reflecting volume of blood cells present in the blood cell storage container after passage through the filter as a percentage of volume of blood cells conveyed to the filter.

6. (Original) A system according to claim 1 or 2 or 3 or 4 wherein the pump station includes a fluid pressure actuated pump and an actuator to apply fluid pressure to the pump.

7. (Original) A system according to claim 1 or 2 or 3 or 4 wherein the blood cells comprise red blood cells.

8. (Currently Amended) A method of processing blood comprising the steps of
providing using the blood processing system as defined in claim 1 or 2 or
3 or 4,
pumping blood cells through the in-line filter, and
conveying blood cells from said filter into the blood cell storage container.

9. (withdrawn) In a method of filtering a liquid using a filter comprising a flexible housing

having an inlet port and outlet port for the liquid and a sheet-like filter element for removing undesired components from the liquid, with the inlet port being separated from the outlet port by the filter element, a method characterized by maintaining the pressure at the outlet side of the filter at a positive pressure above atmospheric pressure by controlling a feed rate per unit time of a feed pump installed in an upstream flow channel of the filter.

10. (withdrawn) The method according to claim 9, wherein the filter does not comprise a spacer for securing a flow channel at the outlet side of the filter.

11. (withdrawn) The method according to claim 9 or claim 10, wherein the filter of which the outlet side flexible housing has not been processed to provide irregularity as a spacer for securing a flow channel at the filter outlet side and/or a filter in which a tube is not inserted between the outlet side flexible housing and the sheet-like filter as a spacer for securing a flow channel at the filter outlet side are/is used.

12. (withdrawn) The method according to claim 9, wherein the liquid to be filtered is blood.

13. (withdrawn) The method according to claim 10, wherein the liquid to be filtered is blood.

14. (withdrawn) The method according to claim 11, wherein the liquid to be filtered is blood.

15. (withdrawn) The method according to claim 12, wherein the filter is used for removal of leukocytes.

16. (withdrawn) The method according to claim 13, wherein the filter is used for removal of leukocytes.

17. (withdrawn) The method according to claim 14, wherein the filter is used for removal of leukocytes.

18. (withdrawn) In a filtering system for a liquid comprising a filter comprising a flexible housing having an inlet port and outlet port for the liquid, a sheet-like filter element for removing undesired components from the liquid, with the liquid inlet port and the outlet port separated from each other by the filter element, an upstream side flow channel connected to the filter inlet port, a filtered liquid recovery bag, a downstream side flow channel connecting the filter outlet port with the recovery bag, and a feed pump installed in the upstream side flow channel, a filtering system wherein the feed rate per unit time of a feed pump installed in an upstream flow channel of the filter can be controlled so that the pressure at the outlet side of the filter is maintained at positive pressure above atmospheric pressure.

19. (withdrawn) The system according to claim 18, comprising the filter without a spacer for securing a flow channel at the outlet side of the filter.

20. (withdrawn) The system according to a claim 18 or claim 19, wherein a filter of which the outlet side flexible housing has not been processed to provide irregularity as a spacer for securing a flow channel at the filter outlet port and/or a filter in which a tube is not inserted between the outlet side flexible housing and the sheet-like filter as a spacer for securing a flow channel at the filter outlet side are/is used.

21. (withdrawn) The system according to claim 18, wherein the liquid to be filtered is blood.

22. (withdrawn) The system according to claim 19, wherein the liquid to be filtered is blood.

23. (withdrawn) The system according to claim 20, wherein the liquid to be filtered is blood.

24. (withdrawn) The system according to claim 21, wherein the filter is used for removal of leukocytes.

25. (withdrawn) The system according to claim 22, wherein the filter is used for removal of leukocytes.

26. (withdrawn) The system according to claim 23, wherein the filter is used for removal of leukocytes.

27. (withdrawn) A liquid filtering method using the system according to claim 18.

28. (withdrawn) A liquid filtering method using the system according to claim 19.

29. (withdrawn) A liquid filtering method using the system according to claim 20.

30. (withdrawn) A liquid filtering method using the system according to claim 21.

31. (withdrawn) A liquid filtering method using the system according to claim 22.

32. (withdrawn) A liquid filtering method using the system according to claim 23.

33. (withdrawn) A liquid filtering method using the system according to claim 24.

34. (withdrawn) A liquid filtering method using the system according to claim 25.

35. (withdrawn) A liquid filtering method using the system according to claim 26.